

The reducing phubbing behavior among high school students: Application of live modeling technique

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ABSTRACT

The phenomenon of phubbing, which is increasingly widespread, especially among students, is caused by excessive use of social media on smartphones. However, serious handling is needed to reduce such addictive behavior. This study aims to determine the effectiveness of the level of classical guidance with live modeling techniques related to communication disorders and smartphone obsession of students in State Senior High School 1 Kencong Jember Indonesia. Using a quantitative approach and field research type with one group pretest-posttest design experiment method, the sample was determined purposively with 35 students out of 1116 populations. The instrument used in this research is a phubbing scale, which has been tested for validity and reliability. Data analysis used paired sample t-test. The research showed differences in students' phubbing levels before and after being given classical guidance treatment using live modeling techniques. Aspects of phubbing, including communication disturbance and smartphone dependency, decreased significantly after treatment in the form of classical guidance on live modeling techniques. Counselors can use live modeling as an alternative guidance technique to reduce phubbing.

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1. Introduction

Information and communication technology development in smartphones is increasingly becoming part of everyday life (Alamudi & Syukur, 2019; Rosdiana et al., 2022). As time progresses, so does technology and information. The offer of modernity is no longer avoidable. Initially, people used communication tools such as the telephone when they wanted to convey information to others but were hindered by distance. The same goes for the internet, which only accesses essential information. However, with the advancement of time and information technology, people have been indulged in the facilities of smartphones (Sari & Rinaldi, 2019).

Several research reported some surprising facts regarding the number of internet users worldwide, which has reached 4.021 billion people (Abdurrahman et al., 2020). The fascination with gadgets has transformed how individuals interact with others (David & Roberts, 2017). Ministry of Communication and Informatics stated that internet use in Indonesia is very high. This is driven by affordable internet rates, with a large number of smartphone users reaching 167 million people or 89% of the total population of Indonesia (Gufran & Mataya, 2020). The development of internet use and utilization has implications for the emergence of a number of problems, one of which is the emergence of the phubbing phenomenon.

The practice of phubbing has emerged as a phenomenon that has attracted the attention of researchers worldwide. This is due to the widespread use of smartphones as a technological development product often used in social interactions within society (Capilla Garrido et al., 2021; Ratnasary & Oktaviani, 2020). Moreover, it has now entered the realm of pathology. (Chi et al., 2022). Various issues are currently causing psychological disturbances, including the inability to detach from devices, known as phubbing behavior (Al-Saggaf & Macculloch, 2019; Roberts & David, 2022; Saloom & Veriantari, 2022). This behavior affects their learning activities and disrupts their psychological and social lives (Alizamar et al., 2019; Taufik et al., 2019). The term "phubbing" is derived from the words "phone" and "snubbing" (Chotpitayasonondh & Douglas, 2016; Xie et al., 2019).

Phubbing can be seen as excessive smartphone use resulting in time loss (Al-Saggaf & Macculloch, 2019; T'ng et al., 2014). Phubbing behavior is the tendency for someone to excessively use a smartphone and engage in inappropriate behavior, including ignoring interactions with others. Research by Chasombat (2014) found that excessive smartphone use is particularly evident during family or friend gatherings, as individuals constantly hold their smartphones, leading them to ignore those around them. Any intervention in this issue must acknowledge that using smartphones in daily life does not always have a positive impact but can also lead to deviant behavior. The phenomenon sometimes manifests as family jealousy due to misunderstood smartphone usage (Beukeboom & Pollmann, 2021)). Feeling that life without a smartphone is unimaginable, Chotpitayasonondh and Douglas prioritize buying smartphones over other needs (Gutiérrez et al., 2016).

Previous research has proven that although smartphones are beneficial, prolonged use can lead to new problems that can alter self-development (Sprecher et al., 2016; Wilmer et al., 2017). The research results indicate that students with high phubbing behavior do not show differences based on gender and ethnicity. Therefore, there is a need for collaboration and comprehensive efforts to reduce the problem of phubbing (Taufik et al., 2019). However, from the research results, there is still no treatment or counseling-based formulation on how to address issues related to addictive behavior. In counseling, the live modeling technique serves as an alternative to solving social and career-related problems. The counselor uses direct examples or demonstrations to show clients how to confront or overcome a particular problem or situation. The counselor acts as a role model, demonstrating the expected behavior to the client (Bandura, 1986; Corey, 2017). Erford (2016) states that live modeling involves one or more individuals, including professional counselors, teachers, or peer counselors, demonstrating experiences to be learned (Muttaqin et al., 2017).

In live modeling, the counselor will demonstrate effective ways to address the client's problems or situations in real time. The counselor will show the appropriate steps or strategies to deal with the problem. The client will observe how the counselor handles the problem (Wilmer et al., 2017). The live modeling technique aims to provide concrete examples to the client on how to confront and overcome the problems or situations they are facing. By directly observing the counselor's example, it is hoped that the client can gain a better understanding and apply the learned strategies in their daily life (Muttaqin et al., 2017). This research intentionally focuses on segmenting middle school students as a representation of adolescents - a vulnerable phase - transitioning from childhood to adulthood. This phase is often referred to as a period of self-discovery, during which individuals face many developmental challenges, both internally and externally (Masrukhin & Musfiroh, 2021).

This research is considered urgent because, based on a preliminary study conducted on June 16, 2023, using a Likert scale survey, it was found that class X3 has a relatively low level of self-efficacy in social interaction. Therefore, in-depth research is needed to determine the effectiveness of classical guidance with live modeling techniques related to communication disorders and smartphone obsession for students at State High School 1 Kencong Jember as a representation of secondary school students in the Jember region, East Java Province, Indonesia. Thus, the results of this research are expected to provide an alternative solution in building awareness among students to behave pro-socially and respect others. This is due to the significant psychological consequences caused by phubbing behavior for the integrity of social interactions in society.

2. Method

2.1. Research design

This study used a quantitative descriptive research method to examine the phubbing behavior of high school students at Senior High School 1 Kencong Jember. The research employed a field research experimental method, which is used to investigate the influence of specific treatments under controlled conditions. This method involves the application of specific treatments to observe their effects on other variables.

2.2. Participants

The population and sample were derived from a total of 1116 students by selecting a sample of 35 students from class X3. Due to the large population, it was not feasible to study all individuals, for example, due to budget, time, and workforce constraints. Therefore, the researcher utilized a sample taken from it. The sampling technique used was purposive sampling, as in the context of guidance and counseling services, group guidance is only applied to specific classes.

The desired criteria for this research is to observe the high prevalence of phubbing behavior among the students of State Senior High School 1 Kencong Jember, selected based on collaboration with the guidance and counseling teacher of State Senior High School 1 Kencong Jember, and by conducting an assessment of the research population, namely the students of class X3 State Senior High School 1 Kencong Jember, who are then selected based on the obtained assessment results and adjusted to the predetermined criteria of this research. Table 1 presents the samples involved in this research.

Table 1. Sample of the research at State Senior High School 1 Kencong Jember

Class	Male	Female	Total
X 3	14	22	35
X 6	14	21	35
XI IPA 2	11	23	35
Total	39	66	105

2.3. Data collection tools

This research uses a phubbing scale instrument. This measuring tool was developed based on two aspects, namely communication disturbance and obsession with smartphones. Table 2 describes in detail the phubbing scale instrument grid.

Table 2. The Grid of phubbing scale

Sub Variable	Indicator	Statement number
Communication disorders	Receive or make telephone calls	1, 2, 3,4
	Reply to short messages when	5, 6, 7, 8
	Send and check short messages while communicating	9, 10, 11, 12
Mobile phone obsession	Attachment to cell phones	13, 14, 15, 16
	Gold when away from the phone	17, 18, 19, 20
	Difficulty in managing cell phone use	21, 22, 23, 24, 25

Since the objects and samples have been found, the validity and reliability of the instrument must be tested. The data to be obtained using this technique is to know the level of indicators of phubbing behavior problems that cover the aspects of communication disturbance and obsession with smartphones. A study can qualify as a data collection tool if the instrument is at least valid and reliable. From the validity test results using the application SPSS 25.0, it is known that for R, this study table is 0.194 with the number of respondents 105. In this test, 60 angles of the Y variable (phubbing behavior) are provided, and only 47 angles are declared valid and considered to represent the entire statement indicator of the y variable. Next, table 3 presents the results of reliability analysis to determine the level of consistency of the results of an instrument. Based on the above data, the N item of the raft as many as 47 with an alpha value of 0.879 because of the value of the alpha > of the r table with $0.877 > 0.194$ then stated reliable raft with N = 47 table significant 5%. So, the conclusion raft is stated as “reliable.”

Table 3. Cronbach's Alpha calculation results

Cronbach's Alpha	N of Items
.879	47

2.4. Research procedure

Before determining the object, the researcher conducts a preliminary study in the form of a needs assessment. This is aimed at ensuring whether there is a problem related to the prevalence of phubbing behavior in the institution and the need for treatment to reduce this problem. Furthermore, to measure the extent of phubbing behavior among students, the researcher uses a questionnaire as an instrument, which is then calculated using a Likert scale. The design used in this research is a pre-experimental model with a one-group pretest-posttest design. It consists of one group (no control group), while the research process is carried out in three stages: 1) Pretest, to measure the initial condition of the respondents before being given treatment; 2) Treatment, which involves conducting classical guidance with the approach of live modeling technique, 3) Posttest, to determine the condition of the dependent variable after the treatment is given.

2.5. Data analysis

The statistical data analysis used a test of two pairs of samples to measure phubbing behavior among high school students at Senior High School 1 Kencong Jember before and after treatment. Once the lowest level of effectiveness is identified, treatment is carried out using live modeling techniques by mentoring and counseling teachers. As for processes and outcomes in the implementation plan for guidance and counseling services service devices.

3. Results and Discussion

Based on the preliminary study through need assessment results, students in grades XI, IPA 2, and X6 showed lower results of phubbing behavior than other classes. Table 4 describes the description of the sample determined for this research, namely class X3, because it has fulfilled the requirements to be used as a research sample.

Table 4. Assessment results using the scale of phubbing

N	Grade	Average (%)	Criteria
1	X 6	79 %	Good
2	X 3	65%	Not Good
3	XI IPA 2	81%	Good

The study used a primary collection method of a lift given as a pretest and posttest to 35 respondents to determine the difference before and after the treatment. From the calculation results, the average result of the pretest is 87, while the average score of the posttest is 163. From here, you can see an increase in the score, with the total difference between the two being 76. This indicates a definite change with a 98.7% multiple scale between the pre-test and post-test before and after treatment was given to the experimental group through classical guidance with live modeling techniques. Before testing the hypothesis, the data analyzed must be qualified first. The paired sample test is part of the parametric statistical analysis, as shown in Table 5.

Table 5. Table 4. Shapiro Wilk test results

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Pretest	.100	35	.200*	.974	35	.551
Posttest	.115	35	.200*	.974	35	.547

Based on the above table, Shapiro Wilk's test results showed normal data distribution. This can be seen in the significant values obtained greater than 0.05, i.e., sig. values $0.551 > 0.05$ and $0.547 > 0.05$. Thus, it can meet the prerequisites of statistical parametric data analysis and test the hypothesis using a Paired sample t-test. It is necessary to test the hypothesis to determine whether the treatment given, i.e., classical guidance with live modeling techniques (X), can reduce student (Y) phubbing behavior. The test results of the paired sample t-test with SPSS program version 25.0 are shown in Table 6.

Table 6. Test results Paired Sample T-Test Major Hypothesis (X and Y)

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pretest – Posttest	-75.286	9.370	1.584	-78.504	-72.067	-47.534	34	.000

It is known that the resulting t-count value is -47.534. t count negative value is because the pretest average value is lower than the posttest average. In this case, the negative count t value can mean positive. So that the t count is 47.534, it indicates t count > t table (47.534 > 2, 032.) and a significant value of 0,000. This indicates that the sig. (2-tailed) value is 0,000 < 0,05. Based on the result, then the value of the decision is Ha accepted and H0 rejected. Classical guidance with live modeling techniques effectively reduces phubbing behavior in class XI at State Senior High School 1 Kencong Jember.

The analysis showed that phubbing behavior in a State Senior High School 1 Kencong Jember student has become a normative matter, not a rude thing anymore (Abeele et al., 2019). Moreover, having comprehensive and sustained guidance can be mitigated with live modeling techniques. This guidance should be done by a professional counselor, teacher, or counselee's peer (Muttaqin et al., 2017).

The research found similarities with previous studies by Taufik et al., Sprecher et al., and Wilmer et al. regarding the psychological impact of phubbing, smartphone addiction, and communication ethics within social environments. However, there is currently no review regarding effective ways to reduce such behavior to promote wiser usage and prioritize social aspects. Therefore, this research provides insights into practical methods to reduce phubbing behavior, psychosocial disturbances, and addiction and to enhance the cultivation of polite, respectful, and warm behavior. By using a paired sample t-test, the researcher tested the minor hypothesis (Y1) and obtained the test results as shown below on table 7.

Table 7. Paired Sample T-Test Results for Hypothesis Minor (Y1)

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pretest – Posttest	-37.371	5.709	.965	-39.333	-35.410	-38.727	34	.000

Based on the table above, it is known that the obtained value is the t-value of 38.727. Thus, the t-value > t-table (38.727 > 2.032) and the significance value of 0.000 indicates that the sig. value (2-tailed) 0.00 < 0.05. Therefore, the decision is to accept H_a and reject H₀. This means that the effectiveness of classical guidance with modeling techniques can reduce phubbing behavior in communication disturbances among 10th-grade students at State Senior High School 1 Kencong Jember.

From the above data presentation, it can be observed that the impact of phubbing behavior is a disturbance in interpersonal communication. When someone is speaking or trying to interact with phubbing students, they may feel ignored or unappreciated because the students prefer to focus on their smartphones. This can lead to feelings of frustration, loneliness, or even a decrease in the quality of social relationships. Worse, it can hinder students' ability to form strong emotional connections with others. When someone cannot fully pay attention to a conversation or social interaction, they may lose critical emotional nuances and non-verbal expressions crucial to building healthy and meaningful relationships.

Various current issues lead to psychological disturbances, including the inability to detach from devices, known as phubbing behavior (Al-Saggaf & Macculloch, 2019; Roberts & David, 2022; Saloom & Veriantari, 2022). This behavior affects their learning activities and disrupts their psychological and social life (Alizamar et al., 2019; Taufik et al., 2019). The term "phubbing" comes from the combination of "phone" and "snubbing." (Chotpitayasunondh & Douglas, 2016; Xie et al., 2019). The effectiveness of the live modeling technique is evident, and it can be continuously

implemented with varied model designs to make it more engaging and reassuring and to emphasize the importance of interactive communication as a form of self-esteem for each individual.

Next, the researcher presents the results of the second minor hypothesis test (Y2) to determine the effectiveness of classical guidance with live modeling technique (X) in reducing phubbing behavior regarding mobile phone dependency (Y2) among 10th-grade students at State Senior High School 1 Kencong Jember. By using a paired sample t-test, the researcher tested the minor hypothesis (Y2) and obtained the test results as shown below on table 8.

Table 8. Paired Sample T-Test Results for Minor Hypothesis (Y2)

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pretest -Posttest	-37.914	7.265	1.228	-40.410	-35.419	-30.873	34	.000

According to Albert Bandura's theory, addictive behavior can be explained through self-efficacy and modeling processes. Self-efficacy is an individual's belief in their ability to succeed in a specific task or situation. If someone has low self-efficacy, they tend to feel incapable of overcoming challenges and avoiding challenging situations. However, someone with high self-efficacy tends to feel capable of overcoming challenges and achieving desired results. (Bandura, 1986). Saggaf et al. (2019) also confirmed that aside from causing pathological and impulsive social behaviors, it also leads to psychological disorders, including dependence on smartphones (Al-Saggaf & Macculloch, 2019; Roberts & David, 2022; Saloom & Veriantari, 2022). As students, this also affects their learning activities and disrupts their psychological and social lives. (Alizamar et al., 2019; Taufik et al., 2019).

Therefore, continuous treatment and socialization by guidance and counseling teachers are highly emphasized, especially in the school environment. This environment can establish regulations that can be applied systematically and consistently. Thus, when regulations are integrated with the mission of guidance and counseling, they will create a humanistic and tolerant culture. Based on the explanation above, the role of guidance and counseling is urgent to develop positive character in children. The importance of guidance and counseling needs to be recognized, so that school counselors play an optimal role in the education system in Indonesia.

This research has weaknesses. First, this study did not use a control group. So the level of internal validity can still be increased again by considering the use of a control group. Second, the research is limited to the scope of certain schools. So the research results cannot be generalized more widely. A number of weaknesses in this research can be a basis for conducting further research.

4. Conclusion

Academic insecurity of 521 students was in the low category, with cases of insecurity among students categorized as low at 54% and the level of insecurity with shallow criteria at 14%. Academic insecurity is also in the high category at 29% and very high at 3%. High and very high categories require significant attention from schools and teachers at schools. The urgent academic condition of insecurity and attention from teachers and the school is a reward from teachers. Because students feel traumatized if it occurs continuously, and there is no change from professional teachers in the learning process. Students also feel academically insecure because they are always compared to friends and family. Other supporting information is that educated students do not focus too much on academic achievement. Furthermore, professional teachers must be able to design learning to develop professional qualities in handling academic insecurity for students.

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